Total Residual Chlorine by Iodometric Method II (Iodine Titrant)
SM 18th ED 4500-Cl C **Page 1 of 1**

Facility Name:_____VELAP ID_____

Assessor Name:_____Analyst Name:_____Inspection Date_____

Relevant Aspect of Standards	Method Reference	Y	N	N/A	Comments
Records Examined: SOP Number/ Revision/ Date _____ Analyst:_____ Sample ID: _____ Date of Sample Preparation:_____ Date of Analysis:_____					
The phenylarsine oxide (PAO) or sodium thiosulfate standardized to 0.00564 N.	4500-Cl C 3.2				
Standard iodine titrate prepared to 0.0282 N and standardized daily prior to use (as described in 4500-Cl C 3.g.).	4500-Cl C 3.h.				
Cl2-demand-free water prepared and stored as specified.	4500-Cl C 3.m.				
Acetate buffer prepared with chlorine-demand-free water.	4500-Cl C 3.e.				
Sample volume for Cl2 concentrations < 10 mg/L is 200 mL and for higher concentrations volume is diluted to 200 mL with Cl2-demand-free water so not more than 10 mL of PAO solution is used.	4500-Cl C 4.a.1)				
For titration by iodine titration use 5 mL of PAO or S2O3 (Cl2 of 2-5 mg/L) or 10 mL (Cl2 of 5-10 mg/L)	4500-Cl C 4.a.2)				
Add access KI (~1 gram)	4500-Cl C 4.a.2)				
Add 4 mL of acetate buffer or enough to reduce the pH to between 3.5 to 4.2.	4500-Cl C 4.a.2)				
Add 1 mL of starch solution.	4500-Cl C 4.b.2)				
Correct equation used for calculation: mg Cl as Cl_2/L= ((A-5B) X 200) / C , where: A = mL of 0.00564N PAO or Thiosulfate, B = mL of 0.0282N I_2, and C = mL sample.	4500-Cl C.5.a.				
Notes/ Comments:					